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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/290,342	04/12/99	VORBACH	M 2885/3A

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MMC2/0503

EXAMINER

WHITMORE, S

ART UNIT

PAPER NUMBER

2812

DATE MAILED: 05/03/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/290,342

Applicant(s)

VORBACH, MARTIN

Examiner

Stacy A Whitmore

Art Unit

2812

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 15-78 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 15-78 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 08/544,435.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 15-31, and 33-78 are rejected under 35 U.S.C. 102(e) as being anticipated by Barker et al. (5,794,059) (hereinafter referred to as Barker).

4. As for claim 15, Barker taught the invention as claimed, including a massively parallel data processing apparatus comprising:

a plurality of computing cells arranged in a multidimensional matrix, the plurality of computing cells capable of simultaneously manipulating a plurality of data, each of the plurality of computing cells including:

an input interface for receiving a plurality of input signals; a plurality of logic members, at least one of the plurality of logic members coupled to the input interface, the plurality of logic members processing the plurality of input signals; at least one coupling unit selectively coupling at least one of the plurality of logic members to another of the plurality of logic members a function of at least one of a plurality of configuration signals; a register unit selectively storing a portion of the processed input signals; and an output interface for transmitting the processed input signals; wherein the input interface of at least one of the plurality of computing cells is selectively coupled to the

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output interface of at least another of the plurality of computing cells; and a configurable interface for transmitting the plurality of configuration signals to at least some of the plurality of computing cells to configure the at least some of the plurality of computing cells [abstract, fig.'s 5-12, 18-20, col. 15-16, col. 26, lines 49-67col. 25, lines 55-60, col.'s 27-28, col. 29, lines 29-67, col. 58, lines 24-32].

5. As for claim 16, Barker taught the coupling unit includes a mux [col. 29, lines 51-55, col. 30, lines 23-33, and col. 31, lines 11-16].

6. As for claim 17-18, Barker taught a plurality of lines as claimed [see as cited in the rejection of claim 15].

7. As for claim 19, Barker taught a synchronization circuit as claimed [col. 53, lines 37-40].

8. As for claim 20, Barker taught the synchronization circuit includes at least one of the computing cells [See as cited in the rejection of claim 19].

9. As for claims 21-28, Barker taught a configuration unit/ controlled as a function of the plurality of synchronization signals, which can dynamically reconfigure the data processing apparatus/during a program sequence while data is still processed/ without influencing the data to be processed; a configuration memory, configuration signals/words/programs, as claimed [col. 25, lines 36-62, and col. 34, lines 38-52].

10. As for claims 29-31, Barker taught the input interface is coupled to an external memory/ peripheral device / a second massively parallel data processing device [see as cited in the rejection of claim 15].

11. As for claims 33-34, Barker taught a plurality of lines selectively coupling at least a computing cell to another adjacent/ non-adjacent cell, the plurality of lines are divided into segments connected by a transmission gate/electrical switch [see as cited in the rejection of claim 15, and col. 43, lines 4-10].

12. Claim 35 is rejected for the same reasons as cited in the rejections of claims 15-31 above.

13. As for claims 36-37, Barker taught a computing cell maintains a first configuration for a first period of time/capable of detecting a need for a reconfiguration [col. 8, lines 58-63, and col. 16, lines 56-67].
14. As for claims 38-46, Barker taught a memory, an interface, an interface structure optimized for massively parallel data processing apparatuses, and a compiler as claimed [see as cited in the rejections of claims 15-33, and 35-37, and further see fig. 19-22, col. 50, line 45 – col. 51, line 15, col. 52 –53, and col. 61, lines 42-46].
15. As for claim 47, Barker taught a programmable logic device as claimed [see as cited in the above rejections].
16. Claims 48-78 are rejected for the same reasons as cited in the rejections of claims 15-47.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barker et al. (5,794,059) (hereinafter referred to as Barker).
19. As for claim 32, Barker taught the invention substantially as claimed, including the plurality of lines as cited in the rejections of claims 33-34. Barker did not specifically teach the plurality of lines are divided into segments connected by a tri-state buffer. However, "Official Notice" is taken that both the concepts and advantages of a tri-state buffer are well known and expected in the art. It would have been obvious to one of

ordinary skill in the art at the time the invention was made to have the plurality of lines are divided into segments connected by a tri-state buffer because the use of a tri-state buffer would ensure that the bus logic would remain in the proper state, such a high impedance (inactive, or other proper logic state in order to allow information to flow on the bus when desired). Furthermore, tri-state buffers are proven and reliable in the art for the purpose of electrically isolating devices or allowing information flow.

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rechtschaffen	5,347,639
Kogge	5,475,856
Thepaut	5,465,375
Estes	5,301,284

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stacy A Whitmore whose telephone number is (703) 305-0565. The examiner can normally be reached on Monday-Thursday, alternate Friday 6:30am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Niebling can be reached on (703) 308-3325. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

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Stacy Whitmore

April 23, 2001

A handwritten signature in black ink, appearing to read 'John F. Niebling', is positioned above the printed name.

John F. Niebling
Supervisory Patent Examiner
Technology Center 2800